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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,799	08/22/2001	Tsunenori Yamamoto	500.40540X00	7973

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EXAMINER	
AWAD, AMR A	
ART UNIT	**PAPER NUMBER**
2675	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/933,799	YAMAMOTO ET AL.	
	Examiner	Art Unit	
	Amr Awad	2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-29* is/are allowed.

6)☒ Claim(s) *1,2 and 4-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/23/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keely, Jr. et al. (US patent NO. 6,6750,875; hereinafter referred to as Keely) in view of Harney (US patent NO. 5,644,340).

As to independent claim 1, Keely (figures 4A-4B) teaches a display apparatus for executing display by independently applying signal to each pixel of a group of pixels arranged in matrix (col. 10, lines 11-26) that includes means disposed inside each pixel, for enabling display in accordance with a compressed image signal (col. 4, lines 36-49).

Keely does not expressly shows applying signal to each pixel by use of lead wires arranged in row and column direction.

However, Harney (figures 2-3) teaches a frequency mixing for controlling individual pixels in a display (title), wherein the controlling of each individual pixel is carried out by using lead wires arranged in row and column direction (figure 2, and col. 2, line 52 through col. 3, line 3).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Harney having leads wires to

control each individual pixel to be incorporated to Keely's device so as be able to easily control individual pixels in a display formed of a plurality of pixels (col. 1, lines 56-58).

As to claim 2, the claim is substantially similar to independent claim 1, except that claim 2 recites expanding a compressed image signal to gray scale information for each pixel. Both references show gray scale or gradation controlling. For example, Harney shows controlling the gray scale of each individual pixel (col. 4, line 65 through col. Col. 5, line 20).

As to claim 4, Keely shows that the image signal is compressed by spatial axis and gray scale (brightness) axis (col. 4, lines 13-21).

Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keely and Harney as applied to claim 1 above, and further in view of Gormish.

As to claims 5-10, Keely and Harney do not expressly teach having pixels arranged in N x N' rows and columns to constitute a block (41), a grayscale signal having an n value smaller than N x N' (42) is defined by look-up table and is transferred to each of the blocks.

However, Gormish (figures 4A-4C) shows pixels arranged in N x N' rows and columns to constitute a block (41), a grayscale signal having an n value smaller than N x N' (42) is defined by look-up table and is transferred to each of the blocks (col. 7, lines 3-21).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Gormish representing the

N x N' with N value gray scale to be incorporated to Keely's device so as to be able to display an image with a higher gray scale on a display having lower gray scale, which will allow the communication between diverse devices, which in turn increase the versatility of the device.

Allowable Subject Matter

2. Claims 11-29 are allowed.

Response to Arguments

3. Applicant's arguments with respect to claims 1-2, 4-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (571) 272-7764. The examiner can normally be reached on Monday through Fridary from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkwitz can be reached on (571)272-3638. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. A.

AMR A. AWAD
PRIMARY EXAMINER